

ANCHOR

Adaptation for North Carolina's Critical Hatteras-Ocracoke Route



PROTECT FY 2024-2026
OCTOBER 2026



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Project Type: PROTECT Planning Grant

Project Application Funding Priority: 2

Unique Entity Identifier Number: XSN8A4TT1DY5

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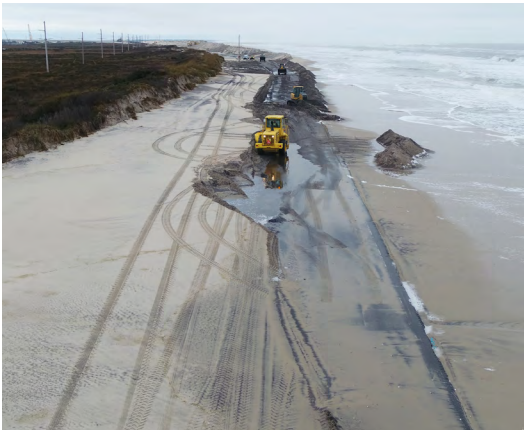
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Application + Supplemental Materials: <https://connect.ncdot.gov/resources/PROTECT2026-ANCHOR/Pages/default.aspx>

I. SUMMARY

Project Title	ANCHOR - Adaptation for North Carolina's Critical Hatteras-Ocracoke Route
Lead Applicant Name	North Carolina Department of Transportation (NCDOT)
Lead Applicant Type	Select from the below statutory eligible applicants: ☒ A State or political subdivision of a State. ☐ A metropolitan planning organization. ☐ A unit of local government. ☐ A special purpose district or public authority with a transportation function, including a port authority. ☐ A federally recognized Indian Tribe (as defined in Section 207(m)(1)). ☐ A Federal land management agency that applies jointly with a State or group of States. ☐ A multi-State or multijurisdictional group of entities described above.
Type of Grant(s)	☒ Planning
Planning Activity Type	☐ Resilience improvement plan ☒ Resilience planning, predesign, design, or data tools ☐ Technical capacity building ☐ Evacuation planning and preparation
Project Area	ANCHOR (or "the Project") focuses on Ocracoke Island (the Island) in Hyde County, North Carolina (NC) and its connection to Hatteras Island in Dare County, NC. Approximately 90 percent of the Island is part of the Cape Hatteras National Seashore (Seashore) under the stewardship of the National Park Service (NPS). In addressing the vulnerabilities of this primary transportation link, ANCHOR also considers ferry connections to Cedar Island in Carteret County and Swan Quarter in Hyde County as part of a holistic strategy that supports emergency preparedness and the movement of residents, visitors, and freight to and from the Island.
Amount of Funding Requested Under this NOFO	Preferred Scenario: \$6,713,227 Contingency Scenario: \$7,722,431
Total Project Cost	Preferred Scenario: \$6,713,227 Contingency Scenario: \$7,722,431
Which type(s) of natural hazards does the project address?	Erosion, flooding, storm surge, ocean and sand overwash, channel shoaling, hurricanes, nor'easters, and other coastal storm events.

Which transportation modes are addressed?	Ferry service and NC 12 roadway access are the primary modes addressed. Bicycle, pedestrian, transit, and advanced air mobility (AAM) improvements needed to support improvements to these primary modes will be addressed in future project phases.
Project Description	
Ferry service between Ocracoke and Hatteras Islands is an essential link that provides access to off-island medical care and essential services while supporting the movement of tourists, commercial goods, and access to the Seashore. However, this access is threatened by increasingly frequent and severe hazards. ANCHOR builds on previous transportation and resilience studies to accelerate the delivery of a preferred access and transportation strategy for Ocracoke Island. It accomplishes this by completing National Environmental Policy Act (NEPA) review, a critical project development milestone required to advance to detailed design, obtain the necessary permits, and obligate future construction funding. NCDOT anticipates coordinating with FHWA and NPS to develop a single NEPA document that satisfies the Federal decision-making requirements for both transportation improvements and actions affecting the Seashore. The applicants anticipate processing ANCHOR as a tiered Environmental Impact Statement (EIS), given the complex regulatory environment, potential for significant effects, and range of access strategies under consideration; however, conventional DEIS/FEIS/ROD documents are also possible. The environmental document will focus on ferry and roadway improvements needed to ensure long-term, resilient access to Ocracoke Island and leverage NCDOT's nationally-recognized NEPA/404 Merger Process to build interagency consensus and reduce permitting risk. Federal environmental review of additional multimodal improvements to support the selected access strategy will occur in future phases. Project activities include public engagement, agency coordination, alternatives development and evaluation, and decision documentation to accelerate advancement of the selected alternative to design, permitting, and construction.	 <i>Ocean overwash and sand accumulation on NC 12 during the September 2026 nor'easter paralyzed Ocracoke Island's primary transportation corridor, underscoring the urgent need for resilient long-term transportation solutions.</i>
Attachments	
» Budget Narrative » Project Snapshot » Combined Letters of Support » NEPA Scope of Work » NFWF Grant Narrative	» Ocracoke Adaptation Study » FEMA Risk Index » NC 12 Task Force Report » Referenced Studies and Tools

II. PROJECT INFORMATION

1	Project Title	ANCHOR - Adaptation for North Carolina's Critical Hatteras-Ocracoke Route
2	Project State	North Carolina

3 Project Location	
Latitude, Longitude: 35.132, -75.905 ANCHOR is focused on Ocracoke Island in Hyde County, NC. The Island is a roughly 13-mile-long barrier island bordered to the west by the Pamlico Sound and to the east by the Atlantic Ocean. Ocracoke Island is located approximately 20-25 miles off the mainland coast of NC in a region known as the Outer Banks. The Hatteras Inlet Ferry Service transports vehicles and goods between the South Dock Ferry Terminal (on the north end of Ocracoke Island) and Hatteras Inlet	North Ferry Terminal (on Hatteras Island). NC Highway 12 (NC 12) spans the length of Ocracoke Island between the South Dock Ferry Terminal and Ocracoke Village, where all of the Island's residential and commercial uses are found, and provides access to the seashore. The Silver Lake Ferry Terminal is located in the heart of Ocracoke Village, and provides seasonal passenger ferry access to Hatteras Island as well as vehicle ferry access to mainland NC; specifically Cedar Island in Carteret County and Swan Quarter in Hyde County.



4	Which Census tract(s) does the project encompass?	9201.01 (<i>Ocracoke Island</i>), 9705.02, 9701.02
5	Is the project fully located in a Rural area?	☒ Yes ☐ No
6	Is the project located in a base floodplain?	☒ Yes ☐ No The South Dock Ferry Terminal, Silver Lake Ferry Terminal, and the majority of NC 12 connecting the South Dock Ferry Terminal to Ocracoke Village are located in the 1 percent annual chance (zone VE or AE) or the 0.2 percent annual chance floodplains. If selected, ANCHOR will implement Actions H7, H9, and H11 of the Northeastern NC Regional Hazard Mitigation Plan.
7	Other Parties	NCDOT - NCDOT will serve as the lead applicant for FY24-FY26 PROTECT Discretionary Grant funding and recipient of grant funds if ANCHOR is selected for award. NCDOT will provide overall project leadership and oversight, administer the grant, participate in public and stakeholder engagement activities, review project deliverables, coordinate agency participation, and anticipates serving as a Cooperating Agency under NEPA. NCDOT will also provide technical support for environmental analysis and field investigations, and will lead geotechnical and hydraulic assessments for the detailed study alternatives. Lastly, NCDOT will lead implementation of the Merger Process, including interagency coordination and concurrence milestones. National Park Service (NPS) - NPS will serve as joint applicant for FY24-FY26 PROTECT Discretionary Grant funding and co-lead agency for completion of the NEPA process. Because the transportation facilities and alternatives evaluated through ANCHOR are located on or affect lands within the Seashore, NPS will partner with FHWA and NCDOT during the NEPA process, participate in alternatives development and environmental review, and serve as a key decision-making partner throughout the Project. NPS will collaborate with NCDOT to develop and review applicable Federal environmental decision documentation, such that NPS can easily adopt a Record of Decision (ROD) and other applicable determinations.

7	Other Parties (continued)	Consultant Team - NCDOT and NPS will select a consultant team to lead day-to-day project delivery under their oversight. The consultant team will conduct technical studies and investigations, facilitate public and stakeholder engagement, support agency coordination, develop and evaluate alternatives, prepare environmental analyses and technical reports, and prepare the NEPA document, anticipated to be a tiered Environmental Impact Statement (EIS), and supporting environmental and decision documentation required to complete environmental review and advance a preferred alternative toward implementation.
8	Eligible Facility Type	☒ Highway project eligible for assistance under Title 23; ☐ Public transportation facility or service eligible for assistance under chapter 53 of Title 49; ☐ Facility or service for intercity rail passenger transportation (as defined in Section 24102 of Title 49); or ☒ Port facility, including a facility that: - Connects a port to other modes of transportation; - Improves the efficiency of evacuations and disaster relief; or - Aids transportation. (23 U.S.C. § 176(d)(5)C).

Project Background

Ocracoke Island is the southernmost coastal community in the string of narrow, low-lying barrier islands known as the Outer Banks that are constantly and dynamically being reshaped by wave and wind action. Its location makes it one of the nation's most isolated and vulnerable communities. FEMA has designated the Island as a Community Disaster Resilience Zone, demonstrating elevated community vulnerability to natural hazards and socioeconomic stressors, and ranked it in the 99.78 percentile for risk of natural and community hazards (see Risk Index in

Supplemental Materials). The Island is particularly vulnerable to nor'easters, hurricanes, and high winds, making its transportation system susceptible to erosion, sand and ocean overwash, shoaling, and flooding. These hazards threaten the near- and long-term viability of transportation infrastructure that are critical to Island access.

The Island is only accessible by boat or private plane, and ferry service is the only public transportation option. The Hatteras Inlet Ferry Service (see **Project Location**) is the Island's primary means of ingress and egress.

Project Background (Cont'd)

This service is essential to public safety, quality of life, and economic development on Ocracoke Island:

- » It provides the fastest and most direct off-island connection.
- » It is a major evacuation route when severe weather is impending.
- » 82 percent of its users are visitors and tourists, making it a mainstay of the Island's economy (see [Economic Contribution of North Carolina's Ferry System](#)).
- » Seasonal workers use this service to commute to on-island jobs.
- » Residents rely on it for travel to doctor appointments, school events, and to access other off-island services and amenities.
- » The majority of food, fuel, construction materials, and service vehicles enter the Island at the South Dock Ferry Terminal.

Increasingly frequent and severe coastal hazards threaten three interconnected components of the Island's transportation system:

NC 12: NC 12 is the only transportation link between South Dock and Ocracoke Village and provides access to ferry

service, residences, businesses, and utility infrastructure. The roadway traverses the Seashore, integrally linking management of this corridor to management of the Seashore's resources.

A two-mile segment south of South Dock has been identified as a transportation hotspot due to chronic erosion of the adjacent shoreline, overwash, and flooding due to rough surf and storm surge from Pamlico Sound during coastal storms and high tides (see *NC 12 Task Force Report* in **Supplemental Materials**). These conditions cause repetitive closures and damages; since 2019, NCDOT has spent nearly [\\$19 million](#) on repair and emergency maintenance here. Data from *Evaluating the Effects of Adaptation Strategies on Ocracoke Island* (see **Supplemental Materials**) shows that NCDOT will be unable to maintain the entire stretch of NC 12 between South Dock and Ocracoke Village in as little as 26-50 years.

South Dock: Steady and rapid erosion of the north end of the Island threatens the ability of NCDOT to operate South Dock in the near term. This erosion has resulted in the loss of



November 2024 drone footage illustrates the beach erosion, dune disturbance, and overwash continually impacting NC 12 on the Island in the wake of coastal storms.



Project Background (Cont'd)

vehicle stacking lanes, creating safety risks from congestion and vehicle queues that stretch along NC 12. This erosion has also led to the loss of the septic drain field for the visitor restrooms, negatively impacting the user experience and creating acute challenges for traveling families.

In the summer of 2019, NCDOT received an emergency permit from the NC Division of Coastal Management (NCDCM) to construct an approximately 1,000-foot bulkhead to stabilize the eroding shoreline as a short-term fix to protect ferry operations. While NCDOT is working closely with its partners at NPS, US Army Corps of Engineers (USACE), and NCDCM to implement additional short-term protection measures, its location within an Ocean Hazard Area, pursuant to the Coastal Management Act, limits NCDOT's ability to implement permanent erosion control structures without changes to state law.

Navigational Channel: NCDOT and USACE have struggled to maintain the Federal navigation channel used by ferry vessels crossing Hatteras Inlet due to shoaling (the deposition of sand and sediment). Channel instability has required multiple route modifications over the past several decades, increasing travel times and reducing operational efficiency.

Following a series of hurricanes in the late 1990s and early 2000s, the direct channel through Hatteras Inlet became unnavigable, forcing vessels to follow a horseshoe-shaped route; by 2023 continued shoaling forced additional revisions to the ferry route and quadrupled the journey time from



Chronic erosion has destroyed the vehicle stacking lanes and septic field at South Dock.

20 to 80 minutes while reducing the number of daily ferry trips, increasing wait times and creating challenges for tourism, emergency response, freight movement, and access to services that are not available on the Island.

Shoaling in two Federal channels adjacent to the South Dock Terminal, Barney Slough and Sloop Channel, have led to additional delays in recent years and necessitated additional emergency dredging efforts by USACE. The process of coordinating these dredging efforts with USACE to maintain the Federal channel at the necessary depth and width is time-consuming and requires extensive interagency coordination and approval.

These vulnerabilities are interconnected. The Hatteras Inlet Ferry Service depends on a navigable channel, a resilient ferry terminal, and reliable roadway access between South Dock and Ocracoke Village. Failure of any one component disrupts access for residents, businesses, emergency services, and tourism. Recognizing that continued maintenance and emergency repairs alone are unlikely to provide a sustainable long-term solution,

Project Background (Cont'd)

NCDOT, NPS, local governments, and researchers have undertaken a series of studies (see list in **Supplemental Materials**) to better understand transportation vulnerabilities and potential adaptation strategies.

These efforts have established a substantial technical foundation documenting the vulnerability of existing transportation infrastructure and performing high-level design work to begin identifying feasible solutions. Collectively, these studies demonstrate that the status quo is not sustainable and that long-term transportation and access solutions must be evaluated at a holistic, system-wide level.

To address this urgent need, NCDOT submitted a grant application to the National Fish and Wildlife Foundation (NFWF) for a comprehensive transportation, access, and resilience study (Comprehensive Study) for the Island and are awaiting award announcements by the end of 2026. If awarded, the Comprehensive Study will holistically develop a full suite of long-term access alternatives, which ANCHOR will then screen and narrow down for detailed evaluation during the NEPA process. If the Comprehensive Study is not awarded, ANCHOR's contingency scope includes the additional planning activities necessary to support environmental review.



Shoaling of Hatteras Inlet has quadrupled travel times for vehicle ferry service from Hatteras Island and increased labor and fuel costs to NCDOT.

III. BUDGET & FUNDING

1	PROTECT Competitive Grant Program Request Amount	Preferred Scenario: \$6,713,227 Contingency Scenario: \$7,722,431
2	Other Federal Funding	Estimated total of other Federal funding, excluding PROTECT Competitive Grant Program requested funding, in year-of-expenditure dollars: \$0 Other Federal programs and estimated amounts: N/A
3	Non-Federal Funding	N/A
4	Future Eligible Project Cost	Preferred Scenario: \$6,713,227 Contingency Scenario: \$7,722,431
5	Previously incurred project costs (if applicable)	Amount: \$0
6	Total Project Cost	Preferred Scenario: \$6,713,227 Contingency Scenario: \$7,722,431
7	Grant Funds, Sources and Uses of Project Funds (Detailed Budget)	Project costs have been developed at the task level and are summarized in the attached detailed budget. The budget is organized by major project activity, including: (1) Project Management and Grant Administration, (2) Community and Stakeholder Engagement, (3) Alternative Definition and Refinement, (4) Merger Process and Agency Coordination, and (5) NEPA Document and Environmental Compliance. The preferred scenario budget total assumes award of the Comprehensive Study from NFWF, which includes substantial community engagement, conceptual design, and alternatives development. The contingency scenario budget includes additional alternatives development, technical investigations, and planning activities necessary to advance environmental review if the Comprehensive Study is not awarded. The budget for each task incorporates up to 20 percent contingency and accounts for cost escalation anticipated for project delivery in years 2027-2030.

7	Grant Funds, Sources and Uses of Project Funds (Detailed Budget) Cont'd	Preferred Scenario Project Management and Grant Administration Cost: \$678,227 Community and Stakeholder Engagement Cost: \$1,190,000 Alternative Definition and Refinement Cost: \$1,670,000 Merger Process and Agency Coordination Cost: \$1,040,000 NEPA Document and Environmental Compliance Cost: \$2,135,000 Total Preferred Scenario Cost: \$6,713,227 Contingency Scenario Project Management and Grant Administration Cost: \$777,431 Community and Stakeholder Engagement Cost: \$1,360,000 Alternative Definition and Refinement Cost: \$2,150,000 Merger Process and Agency Coordination Cost: \$1,050,000 NEPA Document and Environmental Compliance Cost: \$2,385,000 Total Contingency Scenario Cost: \$7,722,431 ☒ A detailed budget is attached separately. The file is named: NCDOT2-2026 PROTECT-ANCHOR_Budget Attachment
8	Has the applicant submitted previous applications for Federal funding for this project?	☐ Yes ☒ No

“For Ocracoke Island residents, businesses, and the hundreds of thousands of tourists who visit each year, safe and reliable access is a necessity, not a convenience. When travel is disrupted, the impacts ripple through every aspect of the community, affecting emergency response, healthcare access, and commerce. ANCHOR will complete a critical milestone toward implementation of a resilient long-term access strategy, moving solutions closer to reality and delivering lasting benefits for residents and visitors alike.”

- Catherine Peele, NCDOT Deputy Director for Maritime Operations and Programming



IV. MERIT CRITERIA



Criterion #1: Program Alignment

ANCHOR directly advances the purpose of the PROTECT Competitive Grant Program by completing the preliminary engineering and environmental review activities necessary to improve the resilience of a critical transportation system that is increasingly vulnerable to current and future coastal hazards.

The Project addresses transportation facilities that provide essential access to Ocracoke Island, including NC 12 and the South Dock Ferry Terminal, which experience repetitive and increasingly severe impacts from erosion, flooding, overwash, and channel shoaling. Consistent with the objectives of the PROTECT Competitive Grant Program, ANCHOR will enable NCDOT and NPS to assess vulnerabilities associated with current and future weather events, natural disasters, and changing coastal conditions through a streamlined environmental review process. The Project will accelerate the identification of transportation improvements and emergency response strategies that address those vulnerabilities and remain resilient under long-term environmental change, and advance these solutions toward implementation.

Previous studies have documented transportation vulnerabilities affecting NC 12, South Dock, and ferry operations (see **Project Background**). The Project builds upon prior modeling efforts, notably *Evaluating the Effects of Adaptation Strategies on Ocracoke Island*, which evaluated transportation connectivity through 2150, incorporating varying environmental projections, management approaches, and inlet evolution dynamics (see **Supplemental Materials**). In doing so, ANCHOR advances beyond vulnerability

identification by synthesizing field-verified environmental data, including geotechnical screening, bathymetric surveying, and natural resource surveys (see Scope of Work in **Supplemental Materials**) to evaluate the constructability, environmental impacts, and long-term performance of transportation alternatives under future conditions in a unified decision-making framework.

As described in **Project Background**, erosion, flooding, and other coastal hazards are disrupting the movement of goods and people and leading to substantial repair and maintenance costs, underscoring the urgency of identifying resilient long-term transportation solutions. By combining technical investigations, agency consultation, and alternatives analysis into a single coordinated process, ANCHOR enables decision makers to compare transportation strategies based on their ability to maintain reliable access in a cost-effective way, support emergency operations, and deliver long-term resilience benefits under changing coastal conditions.

ANCHOR will use the information generated through environmental review to plan transportation improvements and emergency response strategies that address identified vulnerabilities. Rather than assessing vulnerability alone, the Project uses that information to screen transportation alternatives, leveraging interagency coordination and technical analysis to eliminate alternatives that are unreasonably costly, fail to meet transportation and resilience objectives, or are unlikely to secure required environmental approvals or permits. This screening process focuses detailed

Criterion #1: Program Alignment (Cont'd)

NEPA review and public engagement on a reasonable range of alternatives capable of maintaining long-term access while balancing resilience, environmental stewardship, constructability, and lifecycle cost considerations. Building on the planning process established in the Comprehensive Study (see NFWF grant application in **Supplemental Materials**), the NEPA process will focus on transportation improvements to NC 12 and ferry terminal infrastructure, the most critical and vulnerable components of Ocracoke Island's transportation system, while providing a framework for future multimodal improvements to be advanced through subsequent project-level environmental review.

The Project also enables planning for emergency response and continuity of access during and after coastal hazard events. Through alternatives evaluation and agency coordination, ANCHOR will assess how transportation strategies perform during extreme weather events, maintain connectivity when portions of the transportation system are compromised, and support evacuation, emergency access, and post-disaster recovery (see **Project Background**).

Importantly, ANCHOR has been intentionally designed to accelerate implementation of a long-term access solution rather than produce additional

stand-alone studies and recommendations. The Project is coordinated with the Comprehensive Study and structured to move seamlessly from alternatives development into environmental review and agency decision-making. By completing preliminary engineering, environmental investigations, public engagement, interagency coordination, and environmental decision documentation, ANCHOR reduces project risk and advances the improvements supporting the preferred access strategy toward final design, permitting, and construction readiness. This accelerated pathway is particularly important given increasing erosion, flooding, shoreline change, and navigation challenges affecting the Island's transportation system.

ANCHOR evaluates transportation vulnerabilities under current and future coastal conditions and advances a preferred long-term access strategy through preliminary engineering, environmental review, and agency decision-making. The Project transforms decades of planning into an accelerated implementation pathway that reduces barriers to project delivery, expedites future resilience investments and advances urgently needed transportation improvements before worsening coastal hazards further compromise access to Ocracoke Island.



In 2019, South Dock's vehicle stacking lanes were lost to severe erosion (photo courtesy of the News & Observer)



Criterion #2: Planning Activity Approach

ANCHOR will leverage the best available transportation and environmental data to complete environmental review for a preferred long-term access solution for Ocracoke Island. The Project integrates planning studies, resilience assessments, operational data, environmental resource information, agency guidance, and technical investigations into a cohesive decision-making framework for evaluating transportation alternatives under current and future conditions and selecting a preferred solution that improves long-term transportation resilience.

Data & Decision Support Tools

ANCHOR will incorporate the following data sets, planning resources, and decision-support tools into alternatives development, evaluation, and environmental review:

PREVIOUS PROJECT PLANNING

- » **Comprehensive Transportation, Access, and Resilience Study (pending NFWF award):** Long-term transportation and access alternatives that consider mobility needs, environmental constraints, operational requirements, and feasible adaptation strategies.
- » **Swan Quarter and Cedar Island Passenger Ferry Feasibility Study (pending FLAP obligation):** Ridership demand, infrastructure requirements, and passenger ferry service connecting Ocracoke Island to mainland NC.
- » **South Dock Feasibility Study (2026):** Preliminary terminal stabilization and relocation alternatives; 5 percent design; cost, constructability, environmental, and operational analyses.

- » **Evaluating the Effects of Adaptation Strategies on Ocracoke Island (2025):** Long-term transportation connectivity, adaptation strategies, and barrier-island evolution under environmental scenarios spanning the next 25 to 100 years.
- » **NC 12 Ocracoke Island Hot Spot Study, R-3116A (2016, addendum 2020):** Short- and long-term alternatives addressing erosion, overwash, and storm damage along NC 12.

DECISION-SUPPORT TOOLS & RESOURCES

NCDOT will leverage several data tools it has developed in house to understand potential environmental impacts and predict flooding and inundation on NC 12.

- » **NCDOT Project ATLAS (Advancing Transportation through Linkages, Automation, and Screening):** Environmental screening, mapping, and transportation constraint analysis.
- » **NCDOT Transportation Surge Analysis Prediction Program (T-SAPP):** Transportation flooding and emergency response modeling.
- » **NCDOT Resilience Improvement Plan (RIP):** Vulnerability assessments and resilience planning for critical transportation assets.
- » **NCDOT Roadway Inundation Tool (RIT):** Flood frequency, overtopping, and roadway exposure analysis.
- » **Enhancing Coastal Resilience through Participatory Transformation of Barrier Island (ongoing):** Barrier-island erosion, flooding, and nature-based adaptation research.

Criterion #2: Planning Activity Approach (Cont'd)

- » **Quantifying future precipitation extremes within NC for resilient design (NCDOT Research Project Number 2020-57):** Future precipitation intensity, duration, and frequency projections.
- » **NCDOT Ferry Division Vulnerability Assessment:** Existing and future vulnerabilities affecting Ocracoke's ferry terminals, navigation channels, and roadway access, including flooding, storm surge, erosion, and shoaling.
- » **Community and Stakeholder Engagement:** Community priorities, travel needs, and local knowledge from these efforts inform alternatives development and evaluation.

ANCHOR will use these datasets, information resources, and decision-support tools to support decision-making in several ways:

- » Assess vulnerabilities associated with weather events, natural disasters, and changing coastal conditions;
- » Screen unreasonable alternatives from further consideration; and
- » Focus detailed environmental review on alternatives capable of maintaining reliable transportation access.

Additional site-specific investigations identified in the Scope of Work (see **Supplemental Materials**) will supplement these datasets and provide the information necessary to evaluate constructability, environmental impacts, and transportation system performance under projected future conditions.

Consistent with the process established in the Comprehensive Study, the Project will evaluate alternatives carried forward for detailed consideration using a common set of transportation,

resilience, environmental, operational, and community-based metrics that assess each alternative's resiliency, environmental impacts, and ability to address community transportation needs. The resulting analysis will provide a transparent, data-driven basis for selecting a preferred alternative that remains viable over the long term.

ANCHOR will give particular attention to conditions at South Dock, where erosion and shoreline change have eliminated vehicle stacking lanes, leading to congestion and queuing on NC 12. These conditions create safety concerns because travelers awaiting ferry departures must walk alongside queued vehicles without dedicated pedestrian facilities to reach visitor services and restrooms. This is particularly challenging for families with children, older adults, and individuals with mobility limitations. Because Ocracoke Island depends on ferry service and NC 12 for access to healthcare, emergency response, and essential goods and services, transportation disruptions disproportionately affect both residents and visitors.

ANCHOR will combine historical data, future environmental projections, community input, and alternative-specific information regarding transportation operations, cost, constructability, and environmental resources, in a streamlined and cohesive decision-making process to select a preferred long-term solution that addresses vulnerabilities while maintaining reliable access. This data-driven approach ensures the selected alternative reflects long-term transportation, environmental, operational, and community objectives.



Criterion #3: Innovation

ANCHOR demonstrates innovation through the integration of nature-based solutions, a holistic and coordinated decision-making framework, and replicable best practices for resilient transportation planning in environmentally sensitive coastal settings. The Project further advances innovation through early interagency decision-making, risk-based alternatives screening, and a unified environmental review framework that reduces project delivery risk and accelerates implementation of future resilience investments. These approaches create transferable best practices for transportation resilience planning activities in vulnerable communities throughout the US.

Nature-Based Solutions

ANCHOR incorporates nature-based solutions as a core component of alternatives development, rather than treating them as mitigation measures identified after transportation decisions have been made. Consistent with the Comprehensive Study and previous resilience planning efforts (see **Planning Activity Approach**), the Project evaluates transportation access strategies alongside natural barrier-island processes and resource management goals.

The Project will incorporate feasible and appropriate nature-based solutions into each action alternative and evaluate their ability to improve transportation resilience, reduce maintenance needs, and support long-term resource management objectives. Potential measures include active shoreline stabilization techniques, such as living shorelines and oyster reefs that reduce shoreline erosion, as well as stormwater management practices,

including filter strips and infiltration basins that reduce runoff volumes and improve water quality before runoff reaches adjacent surface waters. The Project will also evaluate opportunities for infrastructure modification, relocation, or removal to restore natural processes while maintaining reliable access.

This approach is particularly innovative because much of the transportation system under evaluation is located within or adjacent to the Seashore, one of the nation's most significant coastal public lands, where transportation infrastructure, natural resource management, and visitor access objectives are closely interconnected. Rather than evaluating transportation independently from the surrounding landscape, ANCHOR integrates infrastructure and resource management considerations within a single decision-making framework. This approach improves the likelihood that transportation investments remain effective under future conditions while reducing long-term maintenance needs and environmental impacts.



Shoreline restoration project with salt marsh plugs and oyster shells in Bogue Sound, NC.

Criterion #3: Innovation (Cont'd)

Innovative Planning Techniques and Risk Reduction Strategies

ANCHOR employs innovative environmental review techniques that integrate permitting considerations and agency decision-making into a single framework to support holistic decision-making, reduce project delivery risk, and improve implementation readiness. The Project uses NCDOT's Merger Process to establish formal interagency consensus at key decision points. Unlike traditional environmental review processes in which agency disagreements may emerge late in project development, the Merger Process establishes structured decision points (CPs) that require agency concurrence before the Project advances:

- » **CP1:** Project Purpose and Need
- » **CP2:** Alternatives Carried Forward for Detailed Study
- » **CP2A (if required):** Bridge Alternatives
- » **CP3:** Preferred Alternative Selection
- » **CP4A:** Avoidance, Minimization, and Project Commitments

This structured concurrence process creates a holistic and integrated decision-making framework that allows Federal, state, and local agencies to identify and resolve issues early in project development. By securing agency concurrence at major decision points before advancing to subsequent phases of analysis, the Project reduces the likelihood that alternatives will require reevaluation, redesign, or additional environmental review later in project development.

ANCHOR also advances innovation through a unified environmental review framework in which FHWA and NPS will serve as co-leads for a single NEPA document. Rather than preparing separate

agency documents or conducting sequential agency reviews, the Project will develop a single NEPA document that satisfies both FHWA transportation decision-making requirements and NPS requirements for actions affecting the Seashore. This coordinated approach advances the principles of One Federal Decision by reducing duplication, improving interagency coordination, and streamlining environmental review while maintaining rigorous environmental standards. The resulting framework improves efficiency, supports earlier resolution of implementation risks, and provides a replicable model for transportation projects requiring coordination among multiple Federal and state agencies.

Replicable Best Practices

Beyond its benefits for Ocracoke Island, ANCHOR will establish transferable best practices that can inform transportation resilience planning in other vulnerable communities. The Project demonstrates how transportation agencies can integrate nature-based solutions into environmental review while considering permitting needs and interagency coordination in a cohesive decision-making framework.

Through structured interagency concurrence and the partnership between NCDOT and NPS, ANCHOR further demonstrates how transportation, permitting, and Federal land management agencies can collaborate to advance environmental approvals for transportation resilience improvements on Federal lands in a streamlined manner. These approaches improve decision quality, reduce project delivery risk, and increase implementation readiness.

V. PROJECT READINESS



Readiness: Technical Assessment

Organizational Capacity

NCDOT and NPS have the organizational, technical, and managerial resources necessary to deliver ANCHOR. As described in **Project Information**, NCDOT will serve as lead applicant and grant administrator. Each year, NCDOT manages the receipt and expenditure of over \$1.5 billion in Federal-Aid Highway Program funds under USC Title 23. NCDOT maintains the financial management, accounting, records management, and reporting systems necessary to comply with PROTECT grant requirements, and currently manages two PROTECT discretionary grants. Upon execution of the PROTECT grant agreement, NCDOT and NPS will execute a Memorandum of Agreement (MOA) documenting agency roles, responsibilities, staffing commitments, decision-making authority, and coordination procedures for project delivery.

Federal Requirements

ANCHOR is designed to satisfy Federal environmental review requirements while informing future permitting decisions. As described in **Innovation** and the Scope of Work (see **Supplemental Materials**), FHWA and NPS will coordinate development of a single NEPA document that satisfies both agencies' environmental review and decision-making requirements. The Project assumes FHWA and NPS will complete environmental review through a tiered EIS process that incorporates compliance with applicable Federal requirements, including NEPA, Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species

Act, Section 4(f) of the U.S. Department of Transportation Act, and the Coastal Zone Management Act.

The Project will leverage NCDOT's interagency Merger Process to integrate consideration of future permitting requirements into agency decision-making and environmental review, thus streamlining the path to final design, funding, and construction of a reasonable and prudent solution for all parties.

Timely Project Delivery

NCDOT and NPS are prepared to initiate project delivery immediately upon execution of the grant agreement, anticipated to occur on or before the FY 24 obligation deadline. The Project schedule (see following page) has been structured to support timely obligation of PROTECT funds and streamlined delivery. Consistent with 23 CFR § 771.138, the Project assumes completion of the EIS within two years of publication of the Notice of Intent (NOI).

Technical Feasibility

The planning and technical foundation described in **Project Background**, the data and decision-support framework described in **Planning Activity Approach**, and the Scope of Work (see **Supplemental Materials**) all demonstrate the Project's technical feasibility. Together, these efforts provide a feasible pathway to select a preferred long-term transportation access strategy and advance that strategy toward final design, permitting, and future construction funding.

Readiness: Technical Assessment (Cont'd)																
	CY 2027				CY 2028				CY 2029				CY 2030			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PROTECT Milestones			FY24*				FY25*				FY26*					
Task 1. Project Management + Grant Administration																
PROTECT Grant Agreement Executed, NPS + NCDOT Execute MOA																
Kick-off Meeting																
Administrative Record																
Project Management + Progress Reporting																
Task 2. Community + Stakeholder Engagement																
Update Public Involvement Plan																
Public Scoping Open House																
Draft EIS Comment Period and Public Hearings																
Ongoing + Virtual Engagement																
Task 3. Alternative Definition and Refinement																
Review Comprehensive Study Alternatives																
Alternatives Screening + Carry-Forward Documentation																
Additional Technical Investigations																
Alternative Refinement																
Alternative Evaluations																
Task 4. Merger Process + Agency Coordination																
Agency Coordination Plan/Early Scoping																
Cooperating and Participating Agency Invitations																
Tribal Notification + Consultation																
Merger Process							CP1	CP2		CP2A	CP3		CP4A			
Environmental Resource Agency Consultation																
Task 5. NEPA Document and Environmental Compliance																
Prepare + Publish NOI in Federal Register																
Scoping																
NPS Purpose and Need Document																
Identify Preferred Alternative																
NCDOT apply for Special Use and/or ROW permit																
Draft EIS																
Final EIS																
Final EIS Review: Waiting Period																
Environmental Decision Documents																
Project Closeout																
*Obligation deadline CY: Calendar Year																
If awarded, the Comprehensive Study will achieve the following schedule milestones:																
» Existing Conditions Complete: Q4 2027																
» Alternatives Evaluation Complete: Q4 2028																
» Public Meetings: Q4 2027, Q3 2028, Q3 2029																
» Study Complete: Q3 2029																



Readiness: Financial Completeness Assessment

ANCHOR demonstrates that project costs are reasonable and necessary to complete the proposed planning activity. NCDOT developed costs at the task level based on the level of effort described in the Scope of Work (see **Supplemental Materials**) and included labor and direct expenses (e.g. travel, printing, equipment). The budget includes both a preferred scenario and contingency scenario to ensure all necessary planning activities are funded regardless of the award outcome of the Comprehensive Study. See **Budget and Funding** and the attached **Budget Narrative** for more details.

ANCHOR's costs and budget address the potential for cost overruns. Both budget scenarios incorporate appropriate contingency funding and escalation to address anticipated increases in

labor, travel, and equipment costs in delivery years 2027 through 2030. The incorporation of preferred and contingency budget scenarios ensures sufficient funding is available to complete the planning activity regardless of the outcome of the Comprehensive Study.

The application demonstrates reasonable availability of all funding necessary to complete the Project upon award. ANCHOR does not rely upon other Federal or non-Federal funding sources and is requesting PROTECT Planning Grant funds sufficient to fully fund the proposed planning activity. As described in the **Technical Assessment**, the project schedule supports obligation on or before the FY 2024 obligation deadline, making the Project eligible for all three years of available funding.



Readiness: Permitting Risk Assessment

NEPA Completion

NEPA review is the primary purpose of ANCHOR. FHWA and NPS will coordinate development of a single NEPA document that satisfies both agencies' decision-making requirements. NCDOT and NPS anticipate processing ANCHOR as a tiered Environmental Impact Statement (EIS), given the complex regulatory environment, potential for significant environmental impacts, and range of access strategies and improvements under consideration. Regardless of a tiered versus conventional NEPA review, the decision documentation will focus on ferry and roadway improvements needed to ensure long-term access to Ocracoke Island that is resilient to continued

environmental changes. Consistent with the project schedule (see **Technical Assessment**), environmental review will be completed within two years of publication of the NOI in accordance with 23 CFR § 771.138. The Project's environmental review framework (see Scope of Work in **Supplemental Materials**) provides a clear pathway for completing NEPA review on schedule.

Permits and Approvals

ANCHOR is specifically structured to reduce risk and position the selected alternative for expedited permitting approvals. As described in **Innovation**, NCDOT will leverage NCDOT's Merger Process to build concurrence with permitting agencies throughout project

Readiness: Permitting Risk Assessment (Cont'd)

development, beginning with the purpose and need (CP1) and continuing through avoidance and minimization commitments (CP4A). This process will bring together resource and permitting agencies to collaboratively evaluate alternatives, identify permitting needs, and build consensus around a preferred alternative.

NCDOT and NPS anticipate that the selected alternative will require the following permits following completion of the Project:

- » USACE Section 404, Section 408, and Section 10 permits;
- » NCDEQ Section 401 Water Quality Certification;
- » CAMA Major Permit;
- » NPS Special Use and/or Right-of-Way permits for actions within the Seashore; and
- » US Coast Guard Bridge Permit if a bridge alternative is selected.

The Scope of Work includes activities that directly support future permitting, including wetland and stream delineations and completion of an Approved Jurisdictional Determination, reducing future permitting risk and improving implementation readiness.

Public Engagement

Public engagement is a core element of the Project. The Comprehensive Study (pending award) will meaningfully engage the public through visioning charrettes, listening sessions, community pop-up events, and both in-person and virtual meetings. ANCHOR will build on these efforts to share information on the long-term vulnerabilities of the transportation system and incorporate input on community resilience and access priorities. The Project includes public meetings and comment periods required

under NEPA, in accordance with NCDOT's [Statewide Public Involvement Plan](#).

During scoping and public review of the NEPA document, NCDOT and NPS will lead public meetings in Ocracoke Island, Hatteras Island, Cedar Island, and Swan Quarter as well as virtual meetings for visitors across the county, and will collect additional input to improve analyses, refine alternatives, and inform decision-making (see Scope of Work in **Supplemental Materials**). A known area of potential public controversy is the general public preference to maintain ferry operations at South Dock, largely because of lower initial capital and vessel costs, despite its documented vulnerability. To mitigate this risk, ANCHOR will share more comprehensive information on the long-term threats facing South Dock, lifecycle costs, and long-term multimodal transportation challenges and opportunities to paint a clearer picture of true costs and access challenges across alternatives and incorporate public input on transportation and access priorities into alternatives development, evaluation, and preferred alternative identification.

Known Risks

ANCHOR addresses all known project delivery risks through a structured framework for agency coordination, public engagement, and environmental review. Known risks include:

- » **Potential Public Controversy:** ANCHOR incorporates extensive outreach designed to build public understanding of long-term transportation challenges and build consensus around a preferred alternative (see Public Engagement above).
- » **Agency Opposition and Permitting Conflicts:** ANCHOR addresses this

Readiness: Permitting Risk Assessment (Cont'd)

risk through implementation of NCDOT's Merger Process to build consensus, resolve issues, and secure agency buy-in before identification of a preferred alternative (see Permits and Approvals above).

» **Potential Litigation:** ANCHOR addresses the risk of litigation through early and sustained engagement and agency coordination designed to build consensus around a resilient long-term access solution for Ocracoke Island. Understanding that differences of opinion may still occur,

the Project will maintain a detailed administrative record and implement robust quality assurance and quality control procedures for technical studies, environmental analyses, and decision documentation.

This approach helps ensure that environmental impacts are thoroughly evaluated and disclosed, analyses are technically defensible, and the decision-making process is fully documented, reducing the risk of future legal challenges.

VI. DOT SELECTION PRIORITIES

DOT Selection Priorities

- ☐ The project supports critical infrastructure for industries of national interest.
- ☒ The project would contribute to promoting economic prosperity in communities, including rural areas and Tribal communities.
- ☒ The project prioritizes improvement of the condition and safety of existing transportation infrastructure, particularly infrastructure with high cost of failure, such as bridges with lengthy detours, impacts to critical corridors, or failures that will cause economic disruption.
- ☒ The project demonstrates an ability to meet PROTECT Competitive Grant Program obligation deadlines.
- ☐ The project will reduce roadway traffic congestion.
- ☐ The project improves access to national security and defense facilities or facilitates movement of military cargo or personnel.
- ☐ The project repurposes existing specialized travel lanes for bicycles, buses, or pedestrians for general purpose use by all motor vehicles, including single-occupant motor vehicles and the applicant demonstrates the repurposing will meet the PROTECT program purpose, will reduce congestion on the facility, will utilize 40 percent or less of requested PROTECT funds for adding capacity consistent with 23 U.S.C. 176(d)(5)(G)(i)(I), will address safety consistent with the merit criteria described in Section F of this NOFO, and will comply with applicable Federal requirements, including the Clean Air Act and criteria under 23 U.S.C. 217(e).
- ☐ None of the above apply to the project.

Economic Prosperity

Ocracoke Island's economic prosperity depends on reliable ferry service. Altogether, ferry routes serving Ocracoke Island sustain over 2,300 jobs annually and are responsible for over \$258 million in direct economic output (see [Economic Contribution of North Carolina's Ferry System](#)). The Hatteras Inlet Ferry Service is the primary way tourists reach the Island and a critical link for the movement of fuel, food, construction materials, and other goods that sustain the Island's economy. As described in the **Project Background**, recurring erosion, flooding, overwash, and navigational challenges threaten the reliability of this transportation system. ANCHOR advances a long-term strategy for the ferry and roadway infrastructure that supports this vital economic engine. By completing environmental review and selecting a preferred long-term solution, ANCHOR advances the investments needed to sustain the Island's economic vitality.

Condition and Safety of Existing Transportation Infrastructure

ANCHOR prioritizes improvements to existing transportation infrastructure with an exceptionally high cost of failure. South Dock serves as Ocracoke Island's primary gateway, receiving most visitors and freight via the Hatteras Inlet Ferry Service. NC 12 is the Island's critical transportation corridor, connecting South Dock to Ocracoke Village and providing access to businesses, residences, essential services, and recreational destinations throughout the Seashore. Both assets face significant threats from erosion, flooding, overwash, and other coastal hazards (see **Project Background**). Disruptions at South Dock can interrupt access to the Island and the movement of essential goods, while disruptions to

NC 12 can sever the connection between the ferry terminal and the community it serves. Failure of either asset would cause significant economic disruption, cut off access to essential services, and diminish the reliability of Ocracoke Island's transportation system. ANCHOR represents a critical step toward improving the safety, condition, and long-term reliability of these assets by completing environmental review and selecting a preferred transportation access solution to advance to final design, permitting, and construction.

Ability to Meet Obligation Deadlines

ANCHOR demonstrates the ability to meet PROTECT obligation deadlines and achieve a high readiness rating (see **Technical Assessment**). The Project has the organizational, technical, and financial resources necessary to support timely delivery. It also has a complete funding strategy (see **Financial Completeness Assessment**) and a well-structured approach to managing permitting risk and improving implementation readiness (see **Permitting Risk Assessment**). NCDOT and NPS are prepared to initiate project delivery immediately upon execution of a grant agreement, and the project schedule has been structured to support obligation on or before the FY 2024 obligation deadline, making the Project eligible for all three years of available PROTECT funding. The Project also benefits from a well-defined Scope of Work, established agency roles and responsibilities, and a clear pathway for completing environmental review, which is a crucial milestone toward advancing a long-term access solution into final design, permitting, and future construction funding.

ANCHOR

**PROTECT FY 2024-2026
GRANT APPLICATION
October 2026**



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